DOCUMENT RESUME

ED 331 654 RC 018 075

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TITLE Farm Family Adaptations to Severe Economic Distress: Regional Summary. Results of the 1989 Regional Farm Survey.
INSTITUTION North Central Regional Center for Rural Development, Ames, Iowa.
REPORT NO NCRCRD-RRD-154
PUB DATE Aug 90
NOTE 99p.; For related reports, see RC 018 078 and RC 018 131-145. Each report in this series contains a section on "Information and Training Needs." Part of regional research project NC-184.
AVAILABLE FROM North Central Regional Center for Rural Development, 317 D East Hall, Iowa State University, Ames, IA 50011 ($3.00).
PUB TYPE Reports - Research/Technical (143) -- Statistical Data (110)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Adult Education; Community Satisfaction; *Community Services; *Economic Change; Economic Impact; Economic Status; Educational Needs; *Farmers; Financial Problems; Information Needs; *Quality of Life; *Regional Attitudes; Rural Education; Rural Farm Residents
IDENTIFIERS Regional Surveys; *United States (North Central)

ABSTRACT

This report summarizes data from a February 1989 survey of farm families in 12 North Central states and is a companion reference report for a series of state reports. The 12 states are subdivided into Corn Belt states (Illinois, Indiana, Iowa, Missouri, Ohio); Plains states (North Dakota, South Dakota, Kansas, Nebraska); and Lakes states (Minnesota, Michigan, Wisconsin). Questionnaires were completed by 4,087 farm operators and 3,630 spouses. Operators were slightly older and had slightly larger farms than operators described in the 1987 Census of Agriculture. Overall, respondents believed that, in the past 5 years, community services and facilities had remained the same or improved, but local economic conditions and job opportunities had become worse. Over 70% of respondents believed that the quality of schools and opportunities for adult education had improved or remained the same. About 40% reported that family finances and family quality of life had improved, with the highest percentages in Plains states. Proportions of operators and spouses reporting off-farm employment in 1988 were higher in Corn Belt and Lakes states than in Plains states. Thirty percent or more reported a high need for information and training on reducing production costs through low-input farming methods, using new technologies, and enhancing marketing skills. Other questions covered family adjustments to financial need, financial risk reduction behaviors, participation in government programs, family decision-making behavior, spouse involvement in farm operation, and spouse pressures and coping strategies. This report contains 20 data tables. (SV)

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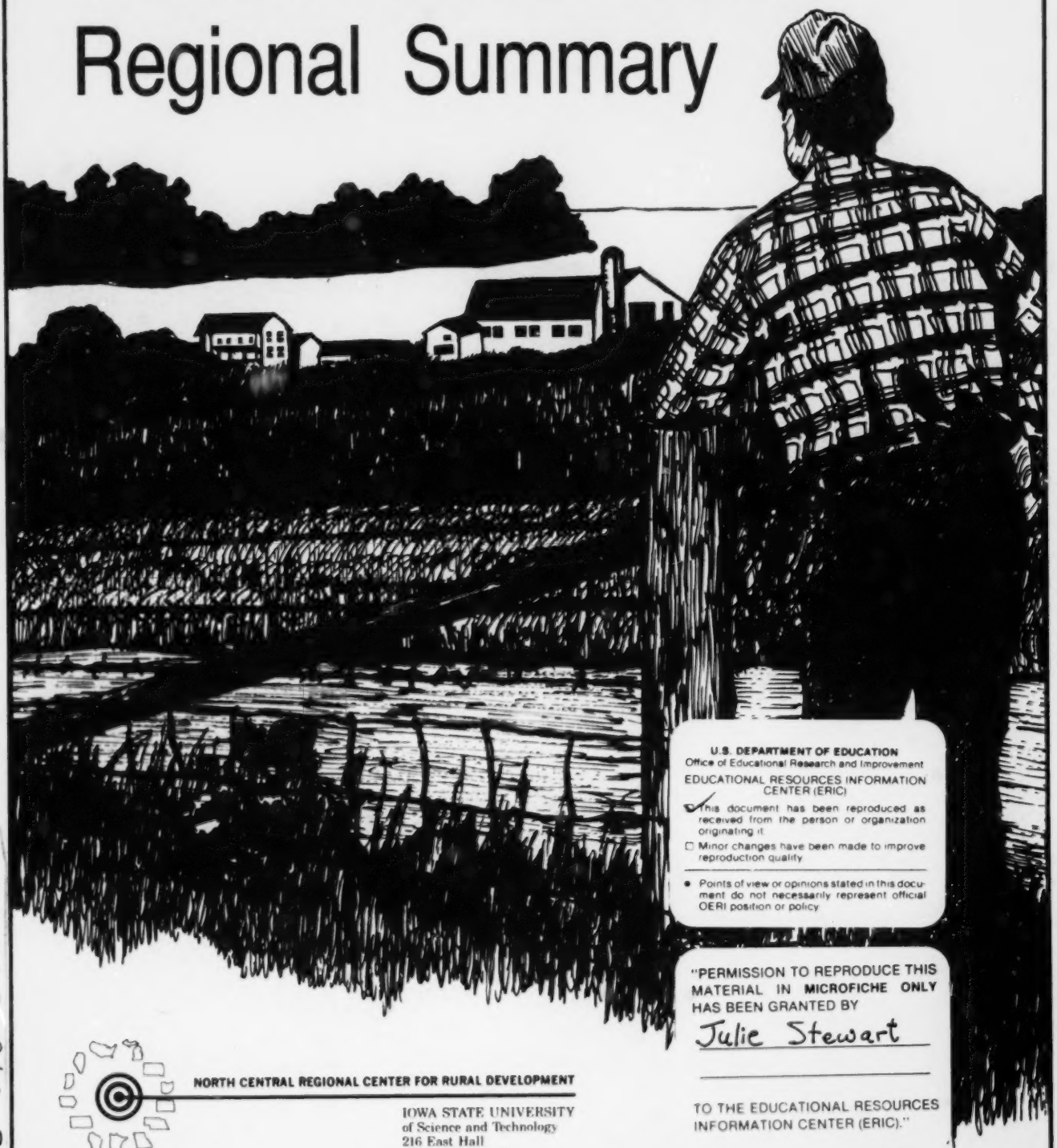
Farm Family Adaptations to Severe Economic Distress:

Regional Summary



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RC 018 075

Farm Family Adaptations to Severe Economic Distress: Regional Summary

Results of the 1989 Regional Farm Survey

Paul Lasley and Jacqueline Fellows

August 1990

RRD 154

Preface

The 1980s brought much change to rural America. Profound changes occurred in farming. As new technology was adopted, farm numbers continued to decline and many farm families found themselves struggling against low commodity prices. In addition, financial distress gripped many farm families. As interest rates soared, farm assets declined and farm incomes plummeted. The farm crisis during the 1980s was undoubtedly one of the darkest moments in the history of the Midwest.

However, as the 1980s drew to a close, many farm families' financial positions improved and much of rural America experienced a recovery. As a result of the differential impact of the farm crisis and the uneven financial recovery, this study of farm families was undertaken as a way to assess the socioeconomic status of farm families in the Midwest.

Financial support for the project was provided by the North Central Regional Center for Rural Development as part of the regional research project NC-184. Cooperating in the study were the land-grant universities and the Agricultural Statistics Services in each of the North Central states. The data collection was conducted through a cooperative agreement between Iowa State University and the Iowa Department of Agriculture and Land Stewardship, Agricultural Statistics Service. The primary objective of the study was to assess the socioeconomic conditions of farm families in the region and provide an overview of needed research and extension activities to assist farm families.

The authors wish to acknowledge the valuable technical assistance provided by Julie Stewart and Kristi Hetland of the North Central Regional Center for Rural Development. Jacqueline Fellows, department of sociology, Iowa State University, provided much assistance in the data management and analysis.

Results of the 1989 Regional Farm Survey: Regional Summary

Paul Lasley and Jacqueline Fellows

This report summarizes data from a survey of farm families conducted in the 12 North Central states, and is a companion reference report for a series of state reports for the North Central Regional Center for Rural Development. The North Central states include Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, North Dakota, South Dakota and Wisconsin. The survey was conducted through the cooperation of Iowa State University Agriculture and Home Economics Experiment Station, the land-grant university and the Department of Agriculture in each state. Funding for the study was provided by the North Central Regional Center for Rural Development.

The purposes of the survey were to:

- Identify the adjustments farm families made during the 1980s in response to the farm crisis.
- Identify information and educational needs of farm families.
- Assess farm families' opinions about several important agricultural and rural development issues.

Methodology

In February 1989, data were collected from a random sample of farm households within each state. Two questionnaires were sent--one for the farm operator and one for the spouse. In addition, a telephone follow-up interview of a random sample of nonrespondents was conducted. The response patterns of the survey and telephone questionnaires were compared statistically to determine if there were significant differences in the response patterns. No significant differences were found. The two samples were then combined for each state and a regional data set, consisting of 4,087 operator questionnaires and 3,630 spouse questionnaires, was created.

Because farms are not distributed equally across the 12 North Central states, the sample sizes for each state were unequal. A weighting procedure was employed to provide a representative sample for the entire region. The weighting procedure was based on the 1984 state Census of Agriculture reports. Tables 1a and 1b (column 1) provide the number of farms for each of the 12 North Central states and total number of farms for the North Central region. Column 2 is the proportion of farms that each state represents of the regional total. Thus, Illinois Census of Agriculture reported there were 88,786 farms in 1987, 10.2 percent of the total for the region.

Table 1a, column 3 provides the number of operator responses for each state and the cumulative total. Column 4 is the proportion of responses that each state contributed to the total

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number of respondents. Thus, for Illinois, 350 respondents represented 8.6 percent of the total sample. In this example, Illinois is slightly under-represented, 8.6 percent of the sample compared with 10.2 percent of the population.

To correct for under-representation and over-representation, a weighting factor was computed by dividing the percent in the region (column 2) by the percentage of the sample (column 4). This factor was used to weight the responses for each question in the survey. The resulting individual state weighting coefficients are shown in column 5. In the case of Illinois, the weighting factor 1.186 is used to inflate the sample to achieve 415 respondents or 10.2 percent.

Results

Diversity in farming in the 12-state region makes comparisons among the 12 states difficult. For more meaningful comparison, the regional sample was subdivided into three areas: the Corn Belt states (Illinois, Indiana, Iowa, Missouri and Ohio); the Plains states (North Dakota, South Dakota, Kansas and Nebraska); and the Lakes states (Minnesota, Michigan and Wisconsin). The weighted sample size of the Corn Belt subregion is 2,112 operator respondents and 1,875 spouse respondents. The Plains subregion has a weighted sample size of 947 operators and 844 spouses and the Lakes subregion has a weighted sample size of 1,028 operators and 911 spouses.

To determine if the sample was representative of the region, estimated regional averages were obtained by using the averages for farm size and age of operator reported by the 1987 Census of Agriculture. The averages for each state in the study were summed and divided by 12 to obtain a regional average. The subregion averages were determined by summing the averages of the states included in the subregion and dividing by that total. The results are shown in Table 2.

The average age of the operators in the region was 50 years old; the average age in the sample was 52 years old. The average farm size for the region was 486 acres, while the average farm size of the sample was 497 acres. The operators in the sample, then, were slightly older than the regional average and the average size farm was slightly larger.

Comparing the sample of operators in the Corn Belt with the regional characteristics of the Corn Belt subregion, the average age of its operators was 51 years old and the average farm size was 263 acres. The average age of the operators in the sample for the Corn Belt was 52 years old and the average farm size was 396 acres. The sample is biased towards older operators with larger farms.

The Plains subregion's average farm size was 946 acres and the average age of the operator was 50 years old. In comparison, the average farm size of the sample was 1,113 acres and the average operator age was 52 years old. In the Plains subregion, the opinions reported will be biased in representing older operators with larger farms.

In the Lakes subregion, the average age of the operator was 50 years old and the average farm size was 245 acres. The average age of the operator in the sample was 51 years old and the average farm size was 342 acres. Again, the sample will be biased towards older operators with larger farms.

Community and Economic Conditions

Operators were asked their opinions about changes in economic and community services over the past five years (Table 3). Overall, operators in the region believed community services and facilities had remained the same or improved. Improved shopping facilities were reported by 44 percent of the operators. The second most often reported improvement was opportunities for adult education (32 percent). Opinions were mixed about the operator's own financial situation. Twenty-seven percent of the operators reported their financial situation had improved, while 29 percent reported it had become worse.

Nearly 20 percent (19 percent) of the operators were uncertain about child care facilities in their communities and 6 percent indicated this service was not available. Considering the operators' and spouses' average ages in this sample, a possible explanation for this high percentage could be that the children of these families were older and did not require child care. Also, the spouse, rather than the operator, may be more aware of whether this service is available in the community.

Operators were more pessimistic about economic conditions and job opportunities in their communities. Fifty-seven percent of the operators indicated the current financial condition of farmers had become worse in the past five years. Nearly 50 percent reported the current financial condition of agribusiness firms had become worse in the past five years. When asked about job opportunities, 39 percent of the operators reported they had become worse.

In comparison, the three subregions showed differences in the ranking of facilities and services. Operators in the Corn Belt and Lakes states were more likely to report improvement in shopping facilities. In contrast, a larger percentage of operators (36 percent) in the Plains subregion reported shopping facilities had become worse. Responses concerning adult education opportunities were similar across the three subregions. Regarding their own farm's financial condition, however, operators in the Plains states were much more likely to report improvement (36 percent).

A higher percentage of Plains operators also reported economic conditions had become better for lenders and agribusinesses. Although the majority of operators indicated economic conditions had become worse for farmers in general, a higher proportion of Plains operators (25 percent) reported conditions had improved. In contrast, only 17 percent of the Corn Belt operators and 11 percent of the Lakes operators believed farmers' economic conditions had improved.

Job opportunities have become worse in all three subregions. Plains operators, however, were the most likely to report that conditions had become worse. Forty-eight percent of the Plains operators reported job opportunities had become worse, while only 36 percent of the Corn Belt operators and 35 percent of the Lakes operators indicated job opportunities had become worse.

Quality of Life

Farm operators' and spouses' opinions about their quality of life are summarized in Table 4. Generally, operators and spouses reported that the quality of life for their family had become

better or remained the same. Approximately four out of 10 operators and spouses reported their family finances and family quality of life had improved. Operators appeared to be more optimistic than spouses when asked about the likelihood of continuing to farm and their satisfaction with farming. Thirty percent of the operators reported their likelihood of continuing to farm in the next five years had improved in comparison to 23 percent of the spouses. Twenty-four percent of the operators were more satisfied with farming, but only 19 percent of the spouses reported their satisfaction with farming had increased. When asked about the overall economic condition of farmers in the next five years, approximately 40 percent of the operators and spouses indicated it would become worse.

Respondents were not as optimistic about "neighboring" in their areas. Three out of 10 operators reported "neighboring" and neighbors helping each other had become worse, while more than one-fourth of the spouses reported this has become worse. Yet the majority of operators and spouses (approximately 70 percent) indicated the things they had in common with people in their communities had remained the same.

Although operators and spouses in all three subregions were more likely to report their family finances had improved, nearly one-half (49 percent) of the operators and spouses in the Plains states indicated their family finances had become better. This was a higher percentage than was reported regionally or in the other subregions.

Operators and spouses in the Plains states also were more likely to respond that their likelihood of continuing to farm in the next five years had become better. In all three subregions, however, a higher proportion of operators than spouses responded this way. This same pattern also emerged regarding operators' and spouses' satisfaction with farming.

In comparing their financial situation with other farmers in their area, operators and spouses in the Plains subregion were more likely to report their situation had become better. Thirty-nine percent of the Plains operators, in contrast to 32 percent of the Corn Belt and 34 percent of the Lakes operations, indicated their situation was better than other farmers in their area. In comparing the spouses' opinions, those in the Plains states were also more likely to report their situation was better than other farmers in their area (36 percent), in contrast to 28 percent of the Corn Belt spouses and 29 percent of the Lakes spouses.

Farm Family Adjustments

For many operators, financial need has forced their families to make a number of adjustments over the past five years (Table 5). More than one-half of the respondents reported they had postponed major household purchases, 49 percent indicated they used savings to meet living expenses and 45 percent reported a decrease in charitable contributions. Four out of 10 operators responded that their families changed transportation patterns as well as modifying food shopping and eating habits to save money. More than one-third of the operators reported their families reduced their household utility use and either they or their spouse had taken off-farm employment. Thirty-two percent decreased the amount of money saved for children's education and 31 percent postponed medical or dental care in response to financial need. One-fourth of the operators replied they sold possessions, cashed in insurance, or purchased more items on credit.

Postponing major household purchases was the most often reported adjustment for all three subregions. In the Plains states, changing transportation patterns (44 percent) was the second most often reported adjustment, rather than using savings to meet living expenses, as reported by the Corn Belt and Lakes operators. One substantial difference between the subregions was noted regarding off-farm employment. Thirty-eight percent of the Corn Belt operators and 35 percent of the Lakes operators reported they had taken off-farm employment; in comparison, 27 percent of the Plains operators reported making this adjustment because of financial need.

Thirty-eight percent of the operators and 47 percent of the spouses in the North Central region worked at off-farm employment in 1988 (Table 6a). Of those who worked off the farm, 70 percent of the operators and 52 percent of the spouses indicated they worked 40 hours or more (Tables 6b, 6c).

In comparing the subregions, a larger percentage of operators and spouses in the Corn Belt and Lakes states reported off-farm employment in 1988 than those in the Plains states. Forty-five percent of the operators and 51 percent of the spouses in the Corn Belt responded they held off-farm employment in 1988; 41 percent of the operators and 51 percent of the spouses worked off the farm in the Lakes states. In contrast, 29 percent of the operators and 43 percent of the spouses in the Plains subregion worked off the farm in 1988.

Differences were also noted in the number of hours worked off the farm. Nearly three-fourths of the operators in the Corn Belt and Lakes subregions who reported off-farm employment responded they had worked 40 hours or more. In the Plains subregion, a smaller percentage worked 40 hours or more off the farm (56 percent).

Operators were asked about changes they had made in their farm operation from 1984 to 1988 (Table 7). Forty-three percent of the operators reported their total acres farmed had not changed in those years; 41 percent had increased the total acres they operated; and 16 percent had decreased the amount of land they farmed. The majority of operators reported the hours they worked on the farm (55 percent) and the percent of farm labor performed by family members (67 percent) had remained the same.

Differences were noted between the subregions. A higher percentage of operators in the Corn Belt and Plains subregion (43 percent) had increased their operations in comparison to the Lakes operators (35 percent). For 21 percent of the Corn Belt and Lakes operators, both the operator hours worked on the farm and the percent of farm labor performed by family members had increased. In contrast, 17 percent of the Plains operators reported an increase in operator hours worked on the farm, while 19 percent reported the percent of farm labor performed by family members had increased.

Risk Reduction Behaviors

Table 8a shows the change operators made in farming practices to reduce risk in the past five years. Approximately eight out of 10 operators paid closer attention to marketing and seven out of 10 postponed a major farm purchase. More than 60 percent reduced their long- or short-term debt and kept more complete financial records. Reducing expenditures for hired help and sharing

labor or machinery were reported by more than 40 percent of the operators. One-third or more of the operators responded they bought crop insurance, diversified their farms by raising livestock, or sought off-farm employment. Although other adjustments were considered important, they were less frequently reported.

Operators were also asked to indicate what adjustments they planned to make in the next five years (Table 8b). In general, operators planned to make the same adjustments they had made in the past five years. Thirteen percent of the operators planned to retire in the next five years, while 17 percent indicated they might retire. Some operators (9 percent) planned to quit farming in the next five years, while 22 percent stated they might quit farming.

In comparing the subregions, substantial differences were found for three of the adjustments. In the Plains subregion, 51 percent of the operators reported buying crop insurance; only 34 percent in the Corn Belt and 37 percent in the Lakes subregions reported purchasing crop insurance. Only 15 percent of the Corn Belt operators reported diversifying their farm by adding new crops, compared to 28 percent in the Plains subregion and 22 percent in the Lakes subregion. One-third or more of the operators in the Corn Belt and Lakes subregions sought off-farm employment, while only 26 percent of the Plains operators indicated they made this adjustment.

Participation in Government Programs

Operators were asked to indicate which government programs they participated in and to evaluate these programs (Table 9). Operators most often reported they participated in four of the programs listed and found them to be helpful: the federal commodity programs (71 percent), the 1988 Drought Assistance Act (50 percent), and the Conservation Reserve and Federal All-Risk Insurance programs (23 percent).

Eight percent of the operators indicated they were unaware of three programs in their areas: Job Partnership Training Act, Farmer/Lender Mediation Service, and financial analysis or counseling by extension service. Some operators (6 percent) were unaware of income assistance and vocational retraining/education programs in their areas.

The most helpful programs regionally were also the most helpful at the subregion level. Differences were found, however, in how helpful these programs had been within specific subregions. Federal commodity programs were reported as "a lot of help" for 36 percent of the Plains operators; a smaller proportion in the Corn Belt (29 percent) and Lakes (24 percent) subregions reported they were a lot of help. The 1988 Drought Assistance act was some help or a lot of help for 62 percent of the Lakes operators; in contrast, 47 percent of the Corn Belt operators and 42 percent of the Plains operators replied it had been helpful.

Information and Training Needs

Table 10 reports what information and training farmers indicated they would need in order to continue farming for the next five years. Overall, operators in the region indicated there were moderate to high needs for information and training across all program areas. Thirty percent or

more reported a high or very high need for information and training on reducing production costs through low-input farming methods, using new technologies as they become available, and enhancing marketing skills. More than 20 percent reported a high need for information and training on available government assistance, using new machines and chemical inputs to increase production, and using appropriate conservation techniques.

When the three subregions were compared, a distinct pattern emerged. Operators in the Plains subregion were more likely to report that information and training were needed for all of the listed programs. For example, a higher percentage of operators in the Corn Belt (23 percent) and the Lakes (25 percent) subregions reported that information and training about marketing skills were not needed. Only 16 percent of the Plains operators reported there was no need for this information and training.

Spouses' Involvement in Farm Operation

Farm spouses were asked about the kinds of work they performed on their farms (Table 11a). Household tasks and child care were "always done" by 92 percent of the spouses. More than one-half of the spouses "always" took care of a family vegetable garden or animals, or did the bookkeeping and record keeping. Many spouses "always" or "sometimes" ran farm errands (92 percent) or worked off the farm (62 percent). Less frequently reported items were milking or caring for farm animals, field work, supervision of farm work, purchasing farm supplies equipment, and marketing farm products.

Table 11b reports spouses' opinions on whether their time spent on each task had changed in the past five years. Twenty percent of the spouses reported an increase in the amount of time spent on household tasks and child care. Twenty-four percent indicated their time spent on bookkeeping and record keeping had increased. More than 20 percent reported decreasing the time spent on gardening and animal care. For 24 percent of the spouses, the time spent at off-farm employment increased in the last five years.

The duties reported by spouses were very similar for all three subregions. Household tasks and child care was the most often reported item. A slightly higher percentage of spouses in the Plains states reported they always ran farm errands (33 percent) in comparison to 27 percent in the Corn Belt and 30 percent in the Lake subregions.

Family Decision-Making Behavior

Spouses were asked who was responsible for making decisions in the household (Table 12). For decisions concerning the purchase of household appliances, 76 percent reported this was a joint decision. Decisions about buying and selling land were made jointly by 61 percent of the respondents; 46 percent reported that renting more or less land and buying major farm equipment were joint decisions.

For decisions about daily farm operations, spouses were more likely to respond that their husband or someone else made that decision. More than one-half of the spouses indicated the decisions to sell agricultural products or to try a new agricultural practice were made by the

operators or someone else. Forty-seven percent replied that the operator or someone else decided what crops or livestock to produce.

These responses were similar in all three subregions. Decisions to purchase household appliances, land or farm equipment, and to rent more or less land were usually joint decisions. Daily farm operation decisions, however, were more often made by the operator or someone else.

Pressures Experienced by Spouses

Spouses were asked to identify how often they experienced certain pressures in their lives (Table 13). Twenty-six percent of the spouses reported daily pressure from lack of control over weather and commodity prices. Balancing work and family responsibilities was a daily pressure for 23 percent of the spouses. Daily pressure from indebtedness and debt-servicing problems was experienced by 12 percent. Less than 10 percent of the spouses reported daily pressure from conflict with spouses or children, adjusting to new government policies, insufficient spousal support, difficulty in arranging child care, or no farm help when needed.

Comparing the three subregions, only one exception in response patterns was noted. A substantially higher proportion of spouses in the Plains states (32 percent) reported daily pressure from lacking control over weather and commodity prices than spouses in the Corn Belt (23 percent) or Lakes (25 percent) states.

Coping Strategies Used by Farm Spouses

Coping strategies and how often they were used by respondents are reported in Table 14. Participation in church activities was "used a great deal" by 36 percent of the spouses. Twenty-three percent tried to remember the positive aspects of farming. Nearly 20 percent reported that they told themselves "success in farming was not the only important thing in life," "noticed people with more difficulties in life," or "put up with a lot as long as they could make a living from farming." The least likely coping strategy used by the spouses was to talk to a family counselor or to other mental health professional (92 percent).

The five coping strategies most often reported regionally were the most often reported in all three subregions. However, participation in church activities was used to cope by a higher percentage of plains spouses (42 percent) than spouses in the Corn Belt (38 percent) or the Lakes (30 percent).

Participation in Farm and Local Organizations

Spouses and their household partner participated in many farm and local organizations (Table 15). The most often reported membership for both spouse (38 percent) and operator (47 percent) was in an organization such as National Farmers' Organization, Grange, Farm Bureau, National Farmers Union, and Young Farmers and Farm Wives. Thirty-two percent of the operators were members of farm supply cooperatives; only 17 percent of the spouses indicated they were members. Twice as many operators (20 percent) as spouses (10 percent) reported they were

members of a commodity producer association. Operators were also more likely to be members of a marketing cooperative or serve on a local governing board than were spouses.

In all three subregions, operators were nearly twice as likely to be members in a marketing or farm supply cooperative or serve on local governing boards. However, a much smaller percentage of operators and spouses in the Corn Belt were members of marketing or farm supply cooperatives than were the operators and spouses in the other two subregions. Operators and spouses in the Lakes subregion were less likely to be members of organizations such as National Farmers' Organization, Grange, Farm Bureau, National Farmers Union, or Young Farmers and Farm Wives, but were more likely to be members of commodity producers associations.

Summary

- In assessing community and economic conditions, the majority of the operators in the region believed community services and facilities had remained the same or improved. Differences were noted in the three subregions: operators in Corn Belt and Lakes states were more likely to report improved shopping facilities than those in the Plains states, but Plains states operators were more likely to report improvement in their farm's financial condition.

- Regarding quality of life and family finances, approximately four out of 10 farm operators and spouses reported improvement. Regarding "neighboring," however, three out of 10 operators and one-fourth of the spouses indicated it had become worse. In looking at the subregions, a higher percentage of the Plains operators and spouses reported their situation had improved and were more likely to respond that their likelihood of continuing to farm had improved.

- A number of family adjustments had been made in response to financial need in the region. The most commonly reported adjustments included postponing major household purchases, using savings to meet living expenses, decreasing charitable contributions, changing transportation and food shopping/eating habits, and seeking off-farm employment.

- A higher proportion of farm operators and spouses in the Corn Belt and Lakes states reported working in 1988 in comparison to the Plains operators and spouses. This difference was also noted in the hours worked off the farm. Nearly three-fourths of the operators who reported off-farm work in the Corn Belt and Lakes states worked 40 hours or more, compared to about one-half of the Plains operators who reported working 40 hours or more.

- Four government programs were found to be helpful for operators in the region: the federal commodity programs, the 1988 Drought Assistance Act, the Conservation Reserve Program and Federal All-Risk Crop Insurance. The 1988 Drought Assistance Act was more helpful to operators in the Lakes states, with more than one-half of the Lakes operators reporting the program had provided help in comparison to less than one-half of the Plains and Corn Belt operators reporting it had provided help.

- Farm spouses took an active role in farm operations. More than one-half of the spouses reported doing the bookkeeping and maintaining farm records and a large percent did the

farm errands necessary for running the farm. Approximately one-fourth of the spouses indicated their time spent on record keeping had increased.

- In making decisions, farm families tended to make joint decisions on the purchase of land, major household appliances or farm equipment, and the renting or selling of land. Daily farm operation decisions, however, were usually made by the operator or someone else.

- Spouses were more likely to report feeling pressure from the lack of control over weather and prices, balancing work and family responsibilities, and indebtedness and debt servicing problems. The most often reported coping strategies for dealing with these pressures were participation in church activities or redefining the situation in a more positive way.

- Operators were more likely to belong to farm and local organizations than spouses. The most often reported membership for operators was in a general farm organization (National Farmers' Organization, Grange, Farm Bureau, National Farmers Union, Young Farmers and Farm Wives). A large percentage also reported membership in a farm supply cooperative.

Table 1a. Information for weighting regional sample--operator

States	Number of farms	Percent in region	Number of responses*	Unweighted percent of sample	Weight factor (%Reg/%Sam)	Weighted sample
Illinois	88,786	10.2	350	8.6	1.186	10.2
Indiana	70,506	8.1	367	9.0	.900	8.1
Iowa	105,180	12.1	398	9.7	1.247	12.1
Kansas	68,579	7.9	432	10.6	.745	7.9
Michigan	51,172	5.9	287	7.0	.843	5.9
Minnesota	92,000	10.6	303	7.4	1.432	10.6
Missouri	106,000	12.2	192	4.7	2.596	12.2
Nebraska	60,502	7.0	230	5.6	1.250	7.0
North Dakota	35,289	4.1	298	7.3	.562	4.1
Ohio	79,277	9.1	388	9.5	.958	9.1
South Dakota	36,376	4.2	207	5.1	.823	5.1
Wisconsin	75,131	8.6	634	15.5	.555	8.6
Total	868,798	100.0%	4,087	100.0%		100.0%

* Includes both mail and telephone responses.

Table 1b. Information for weighting regional sample--spouse

States	Number of farms	Percent in region	Number of responses*	Unweighted percent of sample	Weight factor (%Reg/%Sam)	Weighted sample
Illinois	88,786	10.2	315	8.7	1.172	10.2
Indiana	70,506	8.1	320	8.8	.920	8.1
Iowa	105,180	12.1	351	9.7	1.247	12.1
Kansas	68,579	7.9	408	11.2	.705	7.9
Michigan	51,172	5.9	249	6.9	.855	5.9
Minnesota	92,000	10.6	280	7.7	1.377	10.6
Missouri	106,000	12.2	166	4.6	2.668	12.2
Nebraska	60,502	7.0	222	6.1	1.147	7.0
North Dakota	35,289	4.1	243	6.7	.612	4.1
Ohio	79,277	9.1	353	9.7	.938	9.1
South Dakota	36,376	4.2	182	5.0	.840	5.1
Wisconsin	75,131	8.6	541	14.9	.577	8.6
Total	868,798	100.0%	3,630	100.0%		100.0%

* Includes both mail and telephone responses.

Table 2. Comparison of personal and farm characteristics of region and subregional samples to U.S. Census of Agriculture

	North Central Region		Corn Belt		Plains		Lakes	
	Sample 4087-O 3630-S	Estimated Average*	Sample 2112-O 1875-S	Estimated Average*	Sample 947-O 844-S	Estimated Average*	Sample 1028-O 911-S	Estimated Average*
Average age of operator	52	50	52	51	52	50	51	50
Average age of spouse	49	NA	50	NA	50	NA	48	NA
Average years of education - operator	12	NA	12	NA	12	NA	12	NA
Average years of education - spouse	13	NA	13	NA	13	NA	13	NA
Average size of farm (acres)	550	486	396	263	1113	946	342	245

* Note: The 1987 Census of Agriculture state averages for farm size and operator age were used to calculate estimated region and subregion averages.

O = Operator
S = Spouse

Table 3. Farm operators' opinions on changes in local services, facilities and economic conditions: NC Region and subregions

Response	*Shopping facilities* Corn Belt (1,771)	Plains (854)	Lakes (946)	NC Region (3,575)	*Adult education opportunities* Corn Belt (1,775)	Plains (855)	Lakes (955)	NC Region (3,581)
	Percent				Percent			
Improved	49	26	50	44	31	28	38	32
Remained the same	32	36	32	33	54	55	52	54
Gotten worse	17	36	17	21	5	7	4	5
Uncertain	1	1	1	1	8	7	5	7
Not available	1	1	*	1	2	3	1	2

Response	*Farm's financial condition* Corn Belt (1,778)	Plains (854)	Lakes (960)	NC Region (3,592)	*Banking services* Corn Belt (1,774)	Plains (850)	Lakes (954)	NC Region (3,579)
	Percent				Percent			
Improved	25	36	23	27	28	19	27	26
Remained the same	46	37	43	43	55	61	56	57
Gotten worse	28	26	33	29	16	19	16	16
Uncertain	1	1	1	1	1	1	1	1
Not available	*	*	*	*	*	*	*	*

(continued)

Table 3. (continued) Farm operators' opinions on changes in local services, facilities and economic conditions: NC Region and subregions

Response	*Police and fire protection* Corn Belt (1,777)	Plains (856)	Lakes (958)	NC Region (3,592)	*Quality of schools* Corn Belt (1,777)	Plains (850)	Lakes (956)	NC Region (3,584)
	Percent				Percent			
Improved	25	21	28	25	23	23	20	22
Remained the same	66	71	65	67	51	55	54	53
Gotten worse	6	5	5	6	20	16	21	19
Uncertain	3	2	2	2	5	5	4	5
Not available	*	1	*	*	1	1	1	1

Response	*Health care services* Corn Belt (1,780)	Plains (855)	Lakes (954)	NC Region (3,590)	*Job opportunities* Corn Belt (1,786)	Plains (858)	Lakes (958)	NC Region (3,603)
	Percent				Percent			
Improved	21	23	24	22	25	12	21	21
Remained the same	54	52	52	53	34	34	38	35
Gotten worse	19	20	19	19	36	48	35	39
Uncertain	5	4	4	5	4	4	5	4
Not available	1	1	1	1	1	2	1	1

(continued)

Table 3. (continued) Farm operators' opinions on changes in local services, facilities and economic conditions: NC Region and subregions

Response	*Child care facilities* Corn Belt (1,758)	Plains (842)	Lakes (940)	NC Region (3,540)	*Opportunities for entertainment and recreation* Corn Belt (1,770)	Plains (855)	Lakes (953)	NC Region (3,577)
	Percent				Percent			
Improved	17	16	22	18	21	12	21	18
Remained the same	49	53	46	49	55	58	58	57
Gotten worse	7	10	6	8	18	25	16	19
Uncertain	20	15	21	19	4	3	4	4
Not available	7	6	5	6	2	2	1	2

Response	*Current financial condition of area lenders* Corn Belt (1,769)	Plains (850)	Lakes (947)	NC Region (3,567)	*Current financial condition of farmers* Corn Belt (1,773)	Plains (856)	Lakes (956)	NC Region (3,584)
	Percent				Percent			
Improved	19	23	11	18	17	25	11	17
Remained the same	48	40	48	46	24	22	18	22
Gotten worse	21	26	27	24	55	49	68	57
Uncertain	10	10	13	10	3	4	3	3
Not available	2	1	1	2	1	*	*	1

(continued)

Table 3. (continued) Farm operators' opinions on changes in local services, facilities and economic conditions: NC Region and subregions

Response	*Current financial condition of area agribusiness firms*			
	Corn Belt (1,779)	Plains (857)	Lakes (958)	NC Region (3,593)
	Percent			
Improved	14	18	8	14
Remained the same	35	26	29	31
Gotten worse	42	49	55	47
Uncertain	8	6	7	7
Not available	1	1	1	1

* Less than 1 percent.

Table 4. Farm operator and spouse opinions on quality of life in their communities: NC Region and subregions

Response	*Your family finances in past 5 years*								*Quality of life for your family in past 5 years*							
	Corn Belt		Plains		Lakes		NC Region		Corn Belt		Plains		Lakes		NC Region	
	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp
	Percent								Percent							
Become better	42	39	49	49	41	38	44	41	37	36	39	42	37	36	37	38
Remained the same	29	28	26	25	28	27	28	27	48	47	43	43	44	45	46	45
Become worse	29	33	25	26	31	35	28	32	15	17	18	15	19	19	17	17

Response	*Overall economic condition of farmers in next 5 years*								*Likelihood you will continue to farm for at least the next 5 years*							
	Corn Belt		Plains		Lakes		NC Region		Corn Belt		Plains		Lakes		NC Region	
	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp
	Percent								Percent							
Become better	29	23	29	23	24	20	27	23	30	23	35	27	26	19	30	23
Remained the same	34	33	31	33	29	35	32	33	52	57	49	58	51	58	52	59
Become worse	37	44	40	44	47	45	41	44	18	20	16	15	22	22	19	19

(continued)

Table 4. (continued) Farm operator and spouse opinions on quality of life in their communities: NC Region and subregions

Response	*Your financial situation compared to farmers in your area*								*Your satisfaction with farming*							
	Corn Belt		Plains		Lakes		NC Region		Corn Belt		Plains		Lakes		NC Region	
	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp
	Percent								Percent							
Become better	32	28	39	36	34	29	34	30	23	17	31	24	21	16	24	19
Remained the same	55	56	48	52	51	55	53	55	50	52	45	51	45	50	48	51
Become worse	13	16	13	12	15	16	13	15	27	31	24	25	34	34	28	30

Response	*"Neighboring" over the past 5 years*								*Neighbors helping each other over the past 5 years*							
	Corn Belt		Plains		Lakes		NC Region		Corn Belt		Plains		Lakes		NC Region	
	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp
	Percent								Percent							
Become better	13	13	12	12	14	13	13	12	15	14	13	14	17	13	15	13
Remained the same	57	61	55	59	55	58	56	60	55	61	57	62	53	60	55	61
Become worse	30	26	33	29	31	29	31	28	30	25	30	24	30	27	30	26

(continued)

Table 4. (continued) Farm operator and spouse opinions on quality of life in their communities: NC Region and subregions

Response	*Things you have in common with people in your community*							
	Corn Belt		Plains		Lakes		NC Region	
	Op	Sp	Op	Sp	Op	Sp	Op	Sp
	Percent							
Become better	16	15	15	13	14	13	15	14
Remained the same	70	70	73	74	71	72	71	72
Become worse	14	15	12	13	15	15	14	14

Table 5. Farm family adjustments reported by operator as made in 1985-1989 because of financial need: NC Region and subregions

	Corn Belt	Plains	Lakes	NC Region	Corn Belt	Plains	Lakes	NC Region
	Number of responses				Percent			
Postponed major household purchases	2,089	936	1,019	4,044	53	58	58	56
Used savings to meet living expenses	1,797	860	966	3,623	50	43	50	49
Cut back on charitable contributions	1,796	860	967	3,624	44	43	48	45
Changed food shopping or eating habits to save money	2,087	940	1,018	4,045	40	38	41	40
Changed transportation patterns to save money	2,085	938	1,016	4,040	39	44	41	40
Spouse took off-farm employment	1,716	840	940	3,496	39	37	38	38
Reduced household utility use, such as electricity, telephone	2,078	940	1,017	4,034	38	34	35	36
Took off-farm employment	1,772	858	957	3,588	38	27	35	35
Decreased money saved for children's education	1,693	819	932	3,447	31	31	34	32
Postponed medical or dental care to save money	2,089	941	1,020	4,051	29	31	34	31
Sold possessions or cased in insurance	2,086	940	1,017	4,043	25	23	28	25
Purchased more items on credit	1,794	861	966	3,621	25	25	27	25

(continued)

Table 5. (continued) Farm family adjustments reported by operator as made in 1985-1989 because of financial need: NC Region and subregions

	Corn Belt	Plains	Lakes	NC Region	Corn Belt	Plains	Lakes	NC Region
	Number of responses				Percent			
Canceled or reduced medical insurance coverage	2,083	938	1,016	4,037	18	19	24	19
Fell behind in paying bills	1,792	859	965	3,616	18	18	24	19
Borrowed money from relatives or friends	1,800	862	967	3,629	16	14	18	16
Let life insurance lapse	2,068	933	1,012	4,012	14	16	15	15
Postponed children's education	1,667	817	922	3,588	8	6	8	7

Table 6a. Percentage of operators and spouses with off-farm employment in 1988: NC Region and subregions

	Operator	Spouse
	Percent	
Corn Belt	45	51
Plains	29	43
Lakes	41	51
NC Region	38	47

Table 6b. Off-farm employment of operator in 1988: NC Region and subregions

	Corn Belt	Plains	Lakes	NC Region	Corn Belt	Plains	Lakes	NC Region
Hours per week	Number of responses				Percent			
1-9	36	30	25	91	4	11	6	6
10-19	76	31	32	139	8	11	8	8
20-29	57	37	32	124	7	13	8	8
30-39	76	27	25	126	8	9	6	8
40 +	658	153	277	1,092	73	56	72	70

Table 6c. Off-farm employment of spouse in 1988: NC Region and subregions

	Corn Belt	Plains	Lakes	NC Region	Corn Belt	Plains	Lakes	NC Region
Hours per week	Number of responses				Percent			
1-9	47	38	33	119	5	11	8	7
10-19	88	32	47	165	10	8	10	10
20-29	133	59	71	264	15	17	17	15
30-39	144	59	64	268	16	16	15	16
40 +	487	177	215	879	54	48	50	52

Table 7. Changes in farm operation reported by farm operator--1984 to 1988: NC Region and subregions

	Corn Belt	Plains	Lakes	NC Region	Corn Belt	Plains	Lakes	NC Region
	Acres owned				Acres rented			
Increased	30	31	22	28	28	29	23	27
No change	64	63	72	66	59	54	62	59
Decreased	6	6	6	6	13	17	15	14
	Total acres operated				Operator hours worked			
Increased	43	43	35	41	21	17	21	20
No change	42	40	48	43	68	60	54	55
Decreased	15	17	17	16	11	23	25	25
	Percent family labor on farm							
Increased	21	19	21	20				
No change	53	67	65	67				
Decreased	26	14	14	13				

Table 8a. Farm operators' report of risk reduction behaviors for 1984-1988: NC Region and subregions

	Corn Belt	Plains	Lakes	NC Region	Corn Belt	Plains	Lakes	NC Region
	Number of responses				Percent			
Paid closer attention to marketing	1,729	927	936	3,502	77	86	76	79
Postponed major farm purchase	2,010	827	993	3,930	71	74	71	72
Reduced long-term debt	1,950	895	962	3,806	65	68	61	65
Kept more complete financial records	1,720	845	937	3,502	61	66	63	63
Reduced short-term debt	1,927	891	955	3,773	62	65	60	62
Shared labor or machinery with neighbors	1,735	847	942	3,525	46	47	47	46
Reduced expenditures for hired help	1,979	920	985	3,884	43	43	41	43
Bought crop insurance	2,008	921	990	3,919	34	51	37	39
Diversified farm by raising livestock	1,995	914	974	3,883	37	41	33	37
Sought off-farm employment	1,706	841	935	3,481	36	26	33	33
Reduced machinery inventory	1,729	845	941	3,515	27	24	24	26
Rented more acres	1,981	914	981	3,876	23	24	22	24
Rented fewer acres	1,989	915	981	3,886	21	21	22	21
Diversified farm by adding new crops	2,031	926	997	3,954	15	28	22	20

(continued)

Table 8a. (continued) Farm operators' report of risk reduction behavior for 1984-1988: NC Region and subregions

	Corn Belt	Plains	Lakes	NC Region	Corn Belt	Plains	Lakes	NC Region
	Number of responses				Percent			
Bought additional land	2,019	926	998	3,943	18	21	16	18
Used futures markets to hedge prices	2,004	919	984	3,907	19	16	14	17
Started a new business (not farming)	1,728	842	940	3,511	10	10	11	10
Changed from cash rent to crop share	1,970	915	976	3,860	11	13	6	10
Retired from farming	1,723	838	944	3,506	11	7	10	10
Sold some land	2,024	925	995	3,944	9	8	9	9
Sought training for a new vocation	2,018	925	991	3,934	8	6	9	8
Quit farming	1,706	826	941	3,482	8	5	7	7
Transferred land back to lender	2,003	925	987	3,934	5	5	3	4

Table 8b. Farm operators' report of risk reduction behaviors planned for 1988-1992: NC Region and subregions

	Corn Belt	Plains	Lakes	NC Region	Corn Belt		Plains		Lakes		NC Region	
					Yes/Maybe		Yes/Maybe		Yes/Maybe		Yes/Maybe	
	Number of responses				Percent							
Pay closer attention to marketing	1,599	789	874	3,262	66	15	71	8	65	10	67	9
Postpone major farm purchases	1,580	792	879	3,251	43	20	44	24	46	20	44	21
Reduce long-term debt	1,549	766	864	3,179	54	11	55	13	53	11	54	11
Keep more complete financial records	1,590	791	877	3,259	56	6	58	8	59	6	57	7
Reduce short-term debt	1,529	761	860	3,150	51	9	54	10	51	11	52	10
Share labor or machinery with neighbors	1,587	790	886	3,264	34	11	35	12	34	15	34	13
Reduce expenditures for hired help	1,560	785	873	3,218	30	8	29	8	31	8	30	8
Buy crop insurance	1,583	788	879	3,249	30	13	37	13	35	15	33	14
Diversify farm by raising livestock	1,586	784	869	3,238	26	15	28	14	23	15	26	15
Seek off-farm employment	1,572	786	882	3,239	24	12	20	13	24	14	23	12
Reduce machinery inventory	1,584	790	883	3,257	18	12	19	11	17	12	18	12
Rent more acres	1,572	786	876	3,235	20	15	24	19	16	17	20	17
Rent fewer acres	1,570	783	873	3,226	14	8	14	9	15	11	14	9

(continued)

Table 8b. (continued) Farm operators' report of risk reduction behaviors planned for 1988-1992: NC Region and subregions

	Corn Belt	Plains	Lakes	NC Region	Corn Belt Yes/Maybe		Plains Yes/Maybe		Lakes Yes/Maybe		NC Region Yes/Maybe	
	Number of responses				Percent							
Diversify farm by adding new crops	1,617	805	887	3,309	11	34	17	40	19	32	15	35
Buy additional land	1,596	797	890	3,283	13	18	18	23	10	20	13	20
Use the futures markets to hedge prices	1,593	787	882	3,262	18	15	19	22	16	18	17	18
Start a new business (not farming)	1,598	795	882	3,276	7	13	7	14	9	14	8	13
Change from cash rent to crop share	1,550	780	871	3,201	11	9	12	10	6	10	10	10
Retire from farming	1,603	796	893	3,293	13	16	12	19	14	20	13	17
Sell some land	1,594	790	886	3,270	4	10	4	10	7	9	5	10
Seek training for a new vocation	1,591	792	884	3,266	7	10	7	10	8	13	7	11
Quit farming	1,605	790	897	3,292	10	20	8	20	10	25	9	22
Transfer land back to lender	1,581	789	880	3,250	2	3	2	3	1	4	1	4

Table 9. Farm operators' report of participation in government programs and their opinions on how helpful the programs were: NC Region and subregions

Response	*Federal commodity programs* Corn Belt (1,859)	Plains (877)	Lakes (917)	NC Region (3,292)	*1988 Drought Assistance Act* Corn Belt (1,799)	Plains (859)	Lakes (917)	NC Region (3,575)
	Percent				Percent			
No help	4	4	5	4	8	8	6	8
Some help	40	43	43	41	31	25	39	32
Lot of help	29	36	24	30	16	17	23	18
Not needed	16	10	19	15	30	33	21	28
Did not qualify	8	6	8	7	12	15	10	12
Not available	1	*	*	1	1	1	*	1
Did not know about	1	1	1	1	2	1	1	1

Response	*Loan's from FmHA* Corn Belt (1,754)	Plains (839)	Lakes (878)	NC Region (3,470)	*Federal All-Risk Crop Insurance* Corn Belt (1,769)	Plains (844)	Lakes (883)	NC Region (3,497)
	Percent				Percent			
No help	9	10	8	9	11	14	11	12
Some help	6	9	5	6	13	24	13	15
Lot of help	7	10	8	8	7	12	5	8
Not needed	63	55	63	61	57	45	56	54
Did not qualify	12	14	13	13	6	3	6	5
Not available	1	1	1	1	1	*	1	1
Did not know about	2	1	2	2	5	2	8	5

(continued)

Table 9. (continued) Farm operators' report of participation in government programs and their opinions on how helpful the programs were: NC Region and subregions

Response	*Conservation Reserve Program (CRP)* Corn Belt (1,771)	Plains (851)	Lakes (878)	NC Region (3,499)	*Farmer/lender mediation service* Corn Belt (1,724)	Plains (834)	Lakes (873)	NC Region (3,431)
	Percent				Percent			
No help	7	8	7	7	10	10	8	9
Some help	15	19	13	16	3	4	4	4
Lot of help	6	10	8	7	1	1	2	1
Not needed	49	38	50	46	72	72	75	73
Did not qualify	19	23	17	20	4	4	5	4
Not available	1	1	1	1	1	2	1	1
Did not know about	3	1	4	3	9	7	5	8

Response	*Chapter 11 bankruptcy (debt reorganization)* Corn Belt (1,766)	Plains (835)	Lakes (872)	NC Region (3,473)	*Chapter 12 bankruptcy (debt restructuring for farmers)* Corn Belt (1,772)	Plains (828)	Lakes (872)	NC Region (3,471)
	Percent				Percent			
No help	8	8	5	7	8	8	5	7
Some help	1	1	*	1	1	1	1	1
Lot of help	1	1	*	1	1	*	*	1
Not needed	86	87	90	87	85	87	89	86
Did not qualify	3	3	3	3	3	3	3	3
Not available	*	--	*	*	*	*	*	*
Did not know about	1	*	2	1	2	1	2	2

(continued)

Table 9. (continued) Farm operators' report of participation in government programs and their opinions on how helpful the programs were: NC Region and subregions

Response	*Vocational retraining/education program for self or family member*				*Mental health counseling for yourself or family member*			
	Corn Belt (1,503)	Plains (762)	Lakes (838)	NC Region (3,103)	Corn Belt (1,508)	Plains (769)	Lakes (839)	NC Region (3,115)
	Percent				Percent			
No help	7	9	6	7	8	9	7	8
Some help	3	3	7	4	2	3	4	3
Lot of help	1	1	3	1	1	1	1	1
Not needed	78	76	75	77	83	80	82	82
Did not qualify	3	3	2	3	1	2	2	1
Not available	2	2	1	2	1	1	*	1
Did not know about	6	6	6	6	4	4	4	4

Response	*Food stamps*				*Fuel assistance*			
	Corn Belt (1,511)	Plains (774)	Lakes (838)	NC Region (3,124)	Corn Belt (1,514)	Plains (775)	Lakes (842)	NC Region (3,131)
	Percent				Percent			
No help	8	9	6	8	7	9	6	7
Some help	1	1	2	1	3	2	5	3
Lot of help	1	1	*	1	1	1	2	1
Not needed	80	77	81	80	78	74	74	76
Did not qualify	8	11	10	9	7	11	10	9
Not available	*	*	*	*	*	*	*	*
Did not know about	2	1	1	1	4	3	3	4

(continued)

Table 9. (continued) Farm operators' report of participation in government programs and their opinions on how helpful the programs were: NC Region and subregions

Response	*Financial analysis or counseling by extension service*				*Job Partnership Training Act or other off-farm job search assistance program*			
	Corn Belt (1,510)	Plains (774)	Lakes (848)	NC Region (3,133)	Corn Belt (1,497)	Plains (768)	Lakes (833)	NC Region (3,098)
	Percent				Percent			
No help	7	8	6	7	7	9	7	8
Some help	5	5	6	5	1	1	2	1
Lot of help	2	2	1	1	*	*	1	*
Not needed	76	73	76	76	80	77	79	79
Did not qualify	2	3	2	2	3	3	2	3
Not available	*	1	1	1	1	2	1	1
Did not know about	8	8	8	8	8	8	8	8

Response	*Unemployment benefits*				*Income assistance (AFDC, SSI)*			
	Corn Belt (1,515)	Plains (774)	Lakes (842)	NC Region (3,130)	Corn Belt (1,509)	Plains (774)	Lakes (841)	NC Region (3,124)
	Percent				Percent			
No help	7	9	6	7	7	9	6	7
Some help	4	2	5	4	2	1	2	2
Lot of help	2	*	2	1	1	1	1	1
Not needed	75	74	71	73	75	72	75	74
Did not qualify	9	12	13	11	8	10	11	9
Not available	*	1	1	1	*	1	*	1
Did not know about	3	2	2	3	7	6	5	6

* Less than 1 percent -- No response

Table 10. Farmers' opinions on their information and training needs to continue farming in the next five years: NC Region and subregions

Response	*Marketing skills* Corn Belt (1,978)	Plains (911)	Lakes (956)	NC Region (3,846)	*Reducing production costs through low-input farming methods* Corn Belt (1,970)	Plains (909)	Lakes (954)	NC Region (3,833)
	Percent				Percent			
Not needed	23	16	25	22	18	12	17	16
Low need	11	12	12	12	14	15	16	15
Moderate need	33	39	35	35	34	41	34	36
High need	23	21	18	21	23	24	22	23
Very high need	10	12	10	10	11	8	11	10

Response	*Using new technologies as they become available* Corn Belt (1,969)	Plains (906)	Lakes (955)	NC Region (3,830)	*Available government assistance* Corn Belt (1,950)	Plains (902)	Lakes (948)	NC Region (3,800)
	Percent				Percent			
Not needed	16	10	15	14	30	20	28	28
Low need	15	15	15	15	18	19	19	18
Moderate need	40	44	38	41	32	35	33	33
High need	22	24	23	23	13	17	12	14
Very high need	7	7	9	7	7	9	8	7

(continued)

Table 10. (continued) Farmers' opinions on their information and training needs to continue farming in the next five years: NC Region and subregions

Response	*Bookkeeping and financial systems* Corn Belt (1,966)	Plains (907)	Lakes (955)	NC Region (3,827)	*Using new machines and chemical inputs to increase production* Corn Belt (1,970)	Plains (910)	Lakes (954)	NC Region (3,835)
	Percent				Percent			
Not needed	34	24	33	31	22	16	21	20
Low need	16	18	19	18	17	18	19	18
Moderate need	29	33	27	29	38	42	35	38
High need	14	17	15	15	16	19	19	18
Very high need	7	8	6	7	7	5	6	6

Response	*Using appropriate conservation techniques* Corn Belt (1,681)	Plains (826)	Lakes (903)	NC Region (3,411)	*Diversifying farm operation by adopting new crops and livestock* Corn Belt (1,965)	Plains (906)	Lakes (957)	NC Region (3,829)
	Percent				Percent			
Not needed	25	17	25	23	34	27	32	31
Low need	20	21	20	21	19	20	20	20
Moderate need	35	42	34	36	33	36	30	33
High need	15	16	16	15	11	12	13	12
Very high need	5	4	5	5	3	5	5	4

(continued)

Table 10. (continued) Farmers' opinions on their information and training needs to continue farming in the next five years: NC Region and subregions

Response	*Processing farm products on farm before selling*			
	Corn Belt (1,962)	**Plains (907)**	**Lakes (953)**	**NC Region (3,822)**
	Percent			
Not needed	47	41	49	46
Low need	25	28	23	25
Moderate need	19	20	19	19
High need	6	8	6	7
Very high need	3	3	3	3

Table 11a. Farm spouses' report on types of farm duties: NC Region and subregions

Response	*Household tasks and/or child care*				*Took care of vegetable garden or animals for family consumption*			
	Corn Belt (1,576)	Plains (758)	Lakes (829)	NC Region (3,163)	Corn Belt (1,833)	Plains (831)	Lakes (900)	NC Region (3,564)
	Percent				Percent			
Always	90	94	91	92	56	61	57	57
Sometimes	7	4	7	6	31	28	31	30
Never	2	1	1	1	9	8	7	9
Not done	1	1	1	1	4	3	5	4
Response	*Bookkeeping and maintained records*				*Worked at an off-farm job*			
	Corn Belt (1,831)	Plains (830)	Lakes (897)	NC Region (3,558)	Corn Belt (1,820)	Plains (825)	Lakes (892)	NC Region (3,537)
	Percent				Percent			
Always	50	51	50	51	35	31	31	33
Sometimes	26	29	28	28	26	30	33	29
Never	20	17	18	18	28	31	24	27
Not done	4	3	4	3	11	8	12	11
Response	*Ran farm errands*				*Milked or cared for farm animals*			
	Corn Belt (1,820)	Plains (829)	Lakes (887)	NC Region (3,536)	Corn Belt (1,796)	Plains (817)	Lakes (885)	NC Region (3,498)
	Percent				Percent			
Always	27	33	30	29	18	17	27	20
Sometimes	64	63	63	63	41	46	40	42
Never	7	3	4	6	24	21	18	22
Not done	2	1	3	2	17	16	15	16

(continued)

Table 11a. (continued) **Farm spouses' report on types of farm duties: NC Region and subregions**

Response	*Field work* Corn Belt (1,795)	Plains (820)	Lakes (891)	NC Region (3,506)	*Marketed farm products through wholesale buyers or directly to consumers* Corn Belt (1,808)	Plains (819)	Lakes (877)	NC Region (3,504)
	Percent				Percent			
Always	11	6	12	10	5	3	7	5
Sometimes	48	55	54	51	18	20	19	19
Never	32	31	26	31	60	61	53	58
Not done	9	8	8	8	17	16	21	18

Response	*Purchased major farm supplies and equipment* Corn Belt (1,806)	Plains (820)	Lakes (886)	NC Region (3,511)	*Supervised the work of others* Corn Belt (1,803)	Plains (823)	Lakes (887)	NC Region (3,512)
	Percent				Percent			
Always	4	4	7	4	4	3	6	4
Sometimes	24	24	27	25	32	37	39	35
Never	60	62	54	59	50	50	43	48
Not done	12	10	12	12	14	10	12	16

Table 11b. Farm spouses' report on changes in the amount of time spent of farm duties: NC Region and subregions

Response	*Household tasks and/or child care*				*Took care of vegetable garden or animals for family consumption*			
	Corn Belt (1,452)	**Plains (703)**	**Lakes (783)**	**NC Region (2,937)**	**Corn Belt (1,611)**	**Plains (747)**	**Lakes (817)**	**NC Region (3,175)**
	Percent				Percent			
Increased	19	19	21	20	12	13	11	12
Stayed the same	66	68	65	66	66	68	67	67
Decreased	15	13	14	14	22	19	22	21
Response	*Bookkeeping and maintained records*				*Worked at an off-farm job*			
	Corn Belt (1,569)	**Plains (750)**	**Lakes (803)**	**NC Region (3,122)**	**Corn Belt (1,437)**	**Plains (686)**	**Lakes (759)**	**NC Region (2,882)**
	Percent				Percent			
Increased	22	28	24	24	24	23	27	24
Stayed the same	65	63	68	65	56	58	53	56
Decreased	13	9	8	11	20	19	20	20
Response	*Ran farm errands*				*Milked or cared for farm animals*			
	Corn Belt (1,655)	**Plains (772)**	**Lakes (828)**	**NC Region (3,255)**	**Corn Belt (1,446)**	**Plains (683)**	**Lakes (762)**	**NC Region (2,891)**
	Percent				Percent			
Increased	16	20	16	17	14	14	18	15
Stayed the same	65	67	66	66	55	54	52	54
Decreased	19	13	18	17	31	32	30	31

(continued)

Table 11b. (continued) **Farm spouses' report on changes in the amount of time spent on farm duties: NC Region and subregions**

Response	*Field work* Corn Belt (1,519)	Plains (720)	Lakes (810)	NC Region (3,049)	*Marketed farm products through wholesale buyers or directly to consumers* Corn Belt (1,263)	Plains (629)	Lakes (700)	NC Region (2,591)
	Percent				Percent			
Increased	13	16	14	14	6	6	6	6
Stayed the same	55	55	56	55	80	82	80	81
Decreased	32	29	30	31	14	12	14	13

Response	*Purchased major farm supplies and equipment* Corn Belt (1,324)	Plains (648)	Lakes (723)	NC Region (2,696)	*Supervised the work of others* Corn Belt (1,313)	Plains (658)	Lakes (727)	NC Region (2,698)
	Percent				Percent			
Increased	5	4	4	4	6	6	8	7
Stayed the same	81	86	84	83	77	81	75	77
Decreased	14	10	12	13	17	13	17	16

Table 12. Farm spouses' opinions on family decision-making behavior: NC Region and subregions

Response	*Buy major household appliances*				*Buy or sell land*			
	Corn Belt (1,821)	Plains (831)	Lakes (899)	NC Region (3,550)	Corn Belt (1,824)	Plains (824)	Lakes (895)	NC Region (3,543)
	Percent				Percent			
Usually me	14	13	14	14	1	*	1	1
My husband or someone else	9	8	7	8	17	18	17	17
My husband and I or someone else	75	78	78	76	59	65	59	61
Decision has never come up	2	1	1	2	23	17	23	21
Response	*Rent more or less land*				*Buy major farm equipment*			
	Corn Belt (1,805)	Plains (817)	Lakes (885)	NC Region (3,507)	Corn Belt (1,808)	Plains (825)	Lakes (894)	NC Region (3,526)
	Percent				Percent			
Usually me	1	*	1	1	1	1	2	1
My husband or someone else	26	27	31	27	45	47	46	46
My husband and I or someone else	43	56	42	46	45	48	46	46
Decision has never come up	30	17	26	26	9	4	6	7

(continued)

Table 12. (continued) Farm spouses' opinions on family decision-making behavior: NC Region and subregions

Response	*Determine when to sell agricultural products*				*Produce a crop or livestock*			
	Corn Belt (1,570)	**Plains (753)**	**Lakes (827)**	**NC Region (3,151)**	**Corn Belt (1,804)**	**Plains (820)**	**Lakes (888)**	**NC Region (3,513)**
	Percent				Percent			
Usually me	2	1	3	2	1	1	1	1
My husband or someone else	53	54	51	53	45	49	48	47
My husband and I or someone else	36	41	37	37	33	37	34	34
Decision has never come up	9	4	9	8	21	13	17	18

Response	*Try a new agricultural practice*			
	Corn Belt (1,808)	**Plains (823)**	**Lakes (890)**	**NC Region (3,520)**
	Percent			
Usually me	1	*	2	2
My husband or someone else	53	57	54	54
My husband and I or someone else	27	29	30	28
Decision has never come up	19	14	14	16

* Less than 1 percent

Table 13. Farm spouses' report on frequency in life pressures: NC Region and subregions

Response	*Lacking control over weather and commodity prices*				*Problems in balancing work and family responsibilities*			
	Corn Belt (1,547)	Plains (747)	Lakes (817)	NC Region (3,112)	Corn Belt (1,575)	Plains (749)	Lakes (817)	NC Region (3,142)
	Percent				Percent			
Almost never	13	10	12	12	17	15	18	17
Occasionally	52	52	54	53	51	56	51	52
Daily	23	32	25	26	22	22	26	23
Does not apply	12	6	9	9	10	7	5	8
Response	*Indebtedness and debt-servicing problems*				*Conflict with children*			
	Corn Belt (1,559)	Plains (743)	Lakes (821)	NC Region (3,123)	Corn Belt (1,576)	Plains (748)	Lakes (822)	NC Region (3,146)
	Percent				Percent			
Almost never	32	31	33	32	34	29	31	32
Occasionally	38	43	39	40	41	49	47	44
Daily	12	13	13	12	6	7	7	7
Does not apply	18	13	15	16	19	15	15	17
Response	*Adjusting to new government policies*				*Conflict with spouse*			
	Corn Belt (1,558)	Plains (742)	Lakes (818)	NC Region (3,118)	Corn Belt (1,572)	Plains (750)	Lakes (830)	NC Region (3,152)
	Percent				Percent			
Almost never	22	19	23	22	38	34	36	37
Occasionally	54	61	56	56	49	56	52	52
Daily	7	9	7	7	6	6	7	6
Does not apply	17	11	14	15	7	4	5	5

(continued)

Table 13. (continued) Farm spouses' report on frequency in life pressures: NC Region and subregions

Response	*Insufficient support from spouse in farm or family duties*				*No farm help or loss of help when needed*			
	Corn Belt (1,556)	**Plains (748)**	**Lakes (826)**	**NC Region (3,129)**	**Corn Belt (1,556)**	**Plains (748)**	**Lakes (825)**	**NC Region (3,128)**
	Percent				Percent			
Almost never	53	54	51	52	29	30	30	29
Occasionally	30	35	33	32	42	44	47	44
Daily	5	4	5	5	3	3	4	3
Does not apply	12	7	11	11	26	23	19	24

Response	*Difficulty with child care arrangements*			
	Corn Belt (1,560)	**Plains (742)**	**Lakes (819)**	**NC Region (3,122)**
	Percent			
Almost never	27	25	28	27
Occasionally	14	18	16	15
Daily	2	1	2	2
Does not apply	57	56	54	56

Table 14. Coping strategies used by farm spouses: NC Region and subregions

Response	*Participate in church activities* Corn Belt (1,576)	Plains (752)	Lakes (831)	NC Region (3,159)	*Remind myself that for everything bad about farming, there is also something good* Corn Belt (1,558)	Plains (746)	Lakes (815)	NC Region (3,118)
	Percent				Percent			
Use a great deal	38	42	30	36	24	23	20	23
Use quite a bit	18	23	22	21	30	37	29	31
Use somewhat	28	25	32	28	33	31	38	34
Never use	16	10	16	15	13	9	13	12
Response	*Put up with a lot as long as I make a living from farming* **Corn Belt (1,518)**	**Plains (736)**	**Lakes (811)**	**NC Region (3,065)**	*Tell myself that success in farming is not the only important thing in life* **Corn Belt (1,547)**	**Plains (741)**	**Lakes (817)**	**NC Region (3,105)**
	Percent				Percent			
Use a great deal	19	20	18	19	20	17	16	19
Use quite a bit	26	32	26	28	29	32	27	29
Use somewhat	29	28	32	29	33	37	39	35
Never use	26	20	24	24	18	14	18	17

(continued)

Table 14. (continued) Coping strategies used by farm spouses: NC Region and subregions

Response	*Notice people who have more difficulties in life than I do*				*Make a plan of action and follow it*			
	Corn Belt (1,558)	**Plains (748)**	**Lakes (820)**	**NC Region (3,127)**	**Corn Belt (1,513)**	**Plains (734)**	**Lakes (805)**	**NC Region (3,052)**
	Percent				Percent			
Use a great deal	19	19	15	18	16	14	15	15
Use quite a bit	36	38	36	36	30	36	30	31
Use somewhat	39	38	43	40	39	38	42	40
Never use	6	5	6	6	15	12	13	14

Response	*Don't expect to get much income from farming*				*Try to keep my feelings to myself*			
	Corn Belt (1,505)	**Plains (732)**	**Lakes (803)**	**NC Region (3,040)**	**Corn Belt (1,547)**	**Plains (746)**	**Lakes (812)**	**NC Region (3,106)**
	Percent				Percent			
Use a great deal	16	12	15	15	15	11	13	14
Use quite a bit	19	14	16	17	23	20	22	22
Use somewhat	39	40	42	40	46	50	47	47
Never use	26	34	27	28	16	19	18	17

(continued)

Table 14. (continued) Coping strategies used by farm spouses: NC Region and subregions

Response	*Become more involved in activities outside the farm*				*Wish that the situation would go away or somehow be over with*			
	Corn Belt (1,560)	Plains (748)	Lakes (826)	NC Region (3,133)	Corn Belt (1,528)	Plains (738)	Lakes (807)	NC Region (3,074)
	Percent				Percent			
Use a great deal	13	15	11	13	14	11	14	13
Use quite a bit	26	29	24	26	14	16	16	15
Use somewhat	46	46	50	47	45	45	41	44
Never use	15	10	15	14	27	28	29	28
Response	*Go on as if nothing is happening*				*Seek spiritual support from minister, priest or other*			
	Corn Belt (1,517)	Plains (734)	Lakes (808)	NC Region (3,059)	Corn Belt (1,542)	Plains (743)	Lakes (813)	NC Region (3,099)
	Percent				Percent			
Use a great deal	15	8	12	12	11	9	6	9
Use quite a bit	23	24	21	23	11	13	10	11
Use somewhat	39	42	38	40	31	38	33	33
Never use	23	26	29	25	47	40	51	47

(continued)

Table 14. (continued) Coping strategies used by farm spouses: NC Region and subregions

Response	*Keep problems secret from others*				*Seek support from friends and/or relatives*			
	Corn Belt (1,531)	Plains (743)	Lakes (810)	NC Region (3,083)	Corn Belt (1,542)	Plains (746)	Lakes (810)	NC Region (3,098)
	Percent				Percent			
Use a great deal	9	7	8	9	8	7	6	7
Use quite a bit	15	15	12	14	17	21	19	19
Use somewhat	46	47	46	46	47	49	48	47
Never use	30	31	34	31	28	23	27	27

Response	*Try to make myself feel better by eating, drinking, smoking, using medication, etc.*				*Refuse to think about it*			
	Corn Belt (1,540)	Plains (748)	Lakes (820)	NC Region (3,108)	Corn Belt (1,516)	Plains (739)	Lakes (813)	NC Region (3,068)
	Percent				Percent			
Use a great deal	4	3	4	4	5	2	3	4
Use quite a bit	6	8	7	7	11	9	10	10
Use somewhat	23	24	26	23	45	48	44	45
Never use	67	65	63	66	39	41	43	41

(continued)

Table 14. (continued) Coping strategies used by farm spouses: NC Region and subregions

Response	*Talk to someone who can do something concrete about the problem*				*Talk to a family counselor or other mental health professional*			
	Corn Belt (1,525)	**Plains (734)**	**Lakes (806)**	**NC Region (3,065)**	**Corn Belt (1,538)**	**Plains (741)**	**Lakes (806)**	**NC Region (3,085)**
	Percent				Percent			
Use a great deal	4	5	4	4	1	1	1	1
Use quite a bit	11	10	9	11	1	2	1	1
Use somewhat	37	42	40	39	5	6	8	6
Never use	48	43	47	46	93	91	90	92

Table 15. Operator and farm spouse membership in farm and local organizations: NC Region and subregions

Response	Spouse				Operator			
	Any organization, such as National Farmers Organizations, Grange, Farm Bureau, National Farmers Union, Young Farmers and Young Wives							
	Corn Belt (1,755)	Plains (805)	Lakes (866)	NC Region (3,425)	Corn Belt (1,726)	Plains (793)	Lakes (843)	NC Region (3,362)
	Percent				Percent			
Member	41	39	30	38	50	49	39	47
Former member	11	40	13	11	15	14	16	15
Never member	48	51	57	51	35	37	45	38
	Any women's branches of general farm organizations, such as Farm Bureau Women							
Response	Spouse				Operator			
	Corn Belt (1,736)	Plains (802)	Lakes (854)	NC Region (3,393)	Corn Belt (1,251)	Plains (597)	Lakes (670)	NC Region (2,517)
	Percent				Percent			
Member	6	7	6	6	4	3	2	3
Former member	6	5	4	5	2	2	3	3
Never member	88	88	90	89	94	95	95	94

(continued)

Table 15. (continued) Operator and farm spouse membership in farm and local organizations: NC Region and subregions

Response	Spouse				Operator			
	Any commodity producers' associations, such as the American Dairy Association or National Wheat Producers Association							
	Corn Belt (1,730)	Plains (787)	Lakes (846)	NC Region (3,363)	Corn Belt (1,620)	Plains (747)	Lakes (806)	NC Region (3,174)
	Percent				Percent			
Member	8	8	17	10	16	20	28	20
Former member	3	5	4	4	5	11	8	7
Never member	89	87	77	86	79	69	64	73
	Any women's branches of commodity organizations, such as the Cattlewomen or the Wheathearts							
	Spouse				Operator			
Response	Corn Belt (1,753)	Plains (803)	Lakes (849)	NC Region (3,405)	Corn Belt (1,275)	Plains (608)	Lakes (682)	NC Region (2,565)
	Percent				Percent			
Member	4	5	2	3	3	3	1	2
Former member	2	2	1	2	1	1	*	1
Never member	94	93	97	95	96	96	99	97

(continued)

Table 15. (continued) Operator and farm spouse membership in farm and local organizations: NC Region and subregions

Women's farm organizations, such as Women for Agriculture, American Agri-Women, or Women Involved in Farm Economics

Response	Spouse				Operator			
	Corn Belt (1,739)	Plains (797)	Lakes (856)	NC Region (3,392)	Corn Belt (1,259)	Plains (607)	Lakes (676)	NC Region (2,541)
	Percent				Percent			
Member	1	2	2	2	*	*	*	*
Former member	1	3	1	1	1	*	1	1
Never member	98	95	97	97	99	100	99	99

Farm political action groups, such as a state Family Farm Movement or National Save the Family Farm Coalition

Response	Spouse				Operator			
	Corn Belt (1,746)	Plains (798)	Lakes (862)	NC Region (3,406)	Corn Belt (1,554)	Plains (710)	Lakes (782)	NC Region (3,046)
	Percent				Percent			
Member	1	2	*	1	1	2	1	1
Former member	*	*	1	*	1	1	1	1
Never member	99	98	99	99	98	97	98	98

(continued)

Table 15. (continued) Operator and farm spouse membership in farm and local organizations: NC Region and subregions

Local governing board, such as school board or town council

Response	Spouse				Operator			
	Corn Belt (1,747)	Plains (788)	Lakes (851)	NC Region (3,387)	Corn Belt (1,554)	Plains (748)	Lakes (796)	NC Region (3,149)
	Percent				Percent			
Member	4	8	7	6	10	20	16	14
Former member	5	8	5	6	12	20	12	14
Never member	91	84	88	88	78	60	72	72

Marketing cooperative

Response	Spouse				Operator			
	Corn Belt (1,732)	Plains (787)	Lakes (846)	NC Region (3,365)	Corn Belt (1,584)	Plains (733)	Lakes (795)	NC Region (3,111)
	Percent				Percent			
Member	6	11	13	9	13	21	23	17
Former member	2	2	3	2	4	7	6	5
Never member	92	87	84	89	83	72	71	78

(continued)

Table 15. (continued) Operator and farm spouse membership in farm and local organizations: NC Region and subregions

Response	*Farm supply cooperative*							
	Spouse				Operator			
	Corn Belt (1,737)	Plains (786)	Lakes (839)	NC Region (3,362)	Corn Belt (1,584)	Plains (760)	Lakes (806)	NC Region (3,182)
	Percent				Percent			
Member	13	26	19	17	25	45	33	32
Former member	3	3	3	3	5	7	6	5
Never member	84	71	78	80	70	48	61	63

* Less than 1 percent

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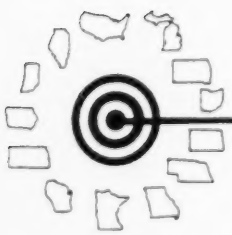

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